Release notes for ENDF/B Development n-050_Sn_117 evaluation



April 26, 2017

- checkr Warnings:
 - 1. A previous error halted parsing of the current section MAT=5040, MF=1, MT=451 (1): Parsing stopped

ERROR(S) FOUND IN MAT=5040, MF= 1, MT=451
SECTION CANNOT BE CHECKED FROM SEQUENCE NUMBER 254 TO 307

- checkr Errors:
 - 1. A variable is outside the allowed ENDF range MAT=5040, MF=1, MT=451 (0): Variable range

ERROR(S) FOUND IN MAT=5040, MF= 1, MT=451
MOD = 1 OUT OF RANGE 0 - 0 RECORD NUMBER 254

2. Missing a section in directory so your directory is messed up. This error will break everything else MAT=5040, MF=2, MT=151 (0): Directory (b)

ERROR(S) FOUND IN MAT=5040, MF= 2, MT=151
SECTION 2/151 NOT IN DIRECTORY RECORD NUMBER 309

3. Missing a section in directory so your directory is messed up. This error will break everything else MAT=5040, MF=3, MT=1 (0): Directory (b)

ERROR(S) FOUND IN MAT=5040, MF= 3, MT= 1
SECTION 3/ 1 NOT IN DIRECTORY RECORD NUMBER 559

4. Missing a section in directory so your directory is messed up. This error will break everything else MAT=5040, MF=3, MT=2 (0): Directory (b)

ERROR(S) FOUND IN MAT=5040, MF= 3, MT= 2
SECTION 3/ 2 NOT IN DIRECTORY RECORD NUMBER 587

5. Missing a section in directory so your directory is messed up. This error will break everything else MAT=5040, MF=3, MT=4 (0): Directory (b)

ERROR(S) FOUND IN MAT=5040, MF= 3, MT= 4
SECTION 3/ 4 NOT IN DIRECTORY RECORD NUMBER 615

6. Missing a section in directory so your directory is messed up. This error will break everything else MAT=5040, MF=3, MT=16 (0): Directory (b)

ERROR(S) FOUND IN MAT=5040, MF= 3, MT= 16
SECTION 3/ 16 NOT IN DIRECTORY RECORD NUMBER 632

7. Missing a section in directory so your directory is messed up. This error will break everything else MAT=5040, MF=3, MT=17 (0): Directory (b)

ERROR(S) FOUND IN MAT=5040, MF= 3, MT= 17 SECTION 3/ 17 NOT IN DIRECTORY

RECORD NUMBER 644

8. Missing a section in directory so your directory is messed up. This error will break everything else

MAT = 5040, MF = 3, MT = 22 (0): Directory (b)

ERROR(S) FOUND IN MAT=5040, MF= 3, MT= 22 SECTION 3/ 22 NOT IN DIRECTORY

RECORD NUMBER 650

9. Missing a section in directory so your directory is messed up. This error will break everything else MAT=5040, MF=3, MT=28 (0): Directory (b)

ERROR(S) FOUND IN MAT=5040, MF= 3, MT= 28 SECTION 3/ 28 NOT IN DIRECTORY

RECORD NUMBER 664

10. Missing a section in directory so your directory is messed up. This error will break everything else

MAT = 5040, MF = 3, MT = 32 (0): Directory (b)

ERROR(S) FOUND IN MAT=5040, MF= 3, MT= 32 SECTION 3/ 32 NOT IN DIRECTORY

RECORD NUMBER 674

11. Missing a section in directory so your directory is messed up. This error will break everything else MAT=5040, MF=3, MT=51 (0): Directory (b)

ERROR(S) FOUND IN MAT=5040, MF= 3, MT= 51 SECTION 3/ 51 NOT IN DIRECTORY

RECORD NUMBER 682

12. Missing a section in directory so your directory is messed up. This error will break everything else MAT=5040, MF=3, MT=52 (0): Directory (b)

ERROR(S) FOUND IN MAT=5040, MF= 3, MT= 52 SECTION 3/ 52 NOT IN DIRECTORY

RECORD NUMBER 699

13. Missing a section in directory so your directory is messed up. This error will break everything else MAT=5040, MF=3, MT=53 (0): Directory (b)

ERROR(S) FOUND IN MAT=5040, MF= 3, MT= 53 SECTION 3/ 53 NOT IN DIRECTORY

RECORD NUMBER 715

14. Missing a section in directory so your directory is messed up. This error will break everything else MAT=5040, MF=3, MT=54 (0): Directory (b)

ERROR(S) FOUND IN MAT=5040, MF= 3, MT= 54 SECTION 3/ 54 NOT IN DIRECTORY

RECORD NUMBER 730

15. Missing a section in directory so your directory is messed up. This error will break everything else MAT=5040, MF=3, MT=55 (0): Directory (b)

ERROR(S) FOUND IN MAT=5040, MF= 3, MT= 55 SECTION 3/ 55 NOT IN DIRECTORY

RECORD NUMBER 744

16. Missing a section in directory so your directory is messed up. This error will break everything else

MAT = 5040, MF = 3, MT = 56 (0): Directory (b)

ERROR(S) FOUND IN MAT=5040, MF= 3, MT= 56 SECTION 3/ 56 NOT IN DIRECTORY

RECORD NUMBER 757

17. Missing a section in directory so your directory is messed up. This error will break everything else

MAT = 5040, MF = 3, MT = 57 (0): Directory (b)

ERROR(S) FOUND IN MAT=5040, MF= 3, MT= 57 SECTION 3/ 57 NOT IN DIRECTORY

RECORD NUMBER 770

18. Missing a section in directory so your directory is messed up. This error will break ev-

erything else MAT=5040, MF=3, MT=58 (0): Directory (b)

ERROR(S) FOUND IN MAT=5040, MF= 3, MT= 58 SECTION 3/ 58 NOT IN DIRECTORY

RECORD NUMBER 782

19. Missing a section in directory so your directory is messed up. This error will break everything else

MAT = 5040, MF = 3, MT = 59 (0): Directory (b)

ERROR(S) FOUND IN MAT=5040, MF= 3, MT= 59 SECTION 3/ 59 NOT IN DIRECTORY

RECORD NUMBER 794

20. Missing a section in directory so your directory is messed up. This error will break everything else MAT=5040, MF=3, MT=60 (0): Directory (b)

M11 = 5040, M1 = 5, M1 = 60 (6). Directory

ERROR(S) FOUND IN MAT=5040, MF= 3, MT= 60 SECTION 3/ 60 NOT IN DIRECTORY

RECORD NUMBER 805

21. Missing a section in directory so your directory is messed up. This error will break everything else

MAT = 5040, MF = 3, MT = 61 (0): Directory (b)

ERROR(S) FOUND IN MAT=5040, MF= 3, MT= 61 SECTION 3/ 61 NOT IN DIRECTORY

RECORD NUMBER 816

22. Missing a section in directory so your directory is messed up. This error will break everything else MAT=5040, MF=3, MT=62 (0): Directory (b)

ERROR(S) FOUND IN MAT=5040, MF= 3, MT= 62 SECTION 3/ 62 NOT IN DIRECTORY

RECORD NUMBER 827

23. Missing a section in directory so your directory is messed up. This error will break everything else

MAT = 5040, MF = 3, MT = 91 (0): Directory (b)

ERROR(S) FOUND IN MAT=5040, MF= 3, MT= 91 SECTION 3/ 91 NOT IN DIRECTORY

RECORD NUMBER 83

24. Missing a section in directory so your directory is messed up. This error will break everything else

MAT = 5040, MF = 3, MT = 102 (0): Directory (b)

ERROR(S) FOUND IN MAT=5040, MF= 3, MT=102 SECTION 3/102 NOT IN DIRECTORY

RECORD NUMBER 847

25. Missing a section in directory so your directory is messed up. This error will break everything else

MAT = 5040, MF = 3, MT = 103 (0): Directory (b)

ERROR(S) FOUND IN MAT=5040, MF= 3, MT=103 SECTION 3/103 NOT IN DIRECTORY

RECORD NUMBER 870

26. Missing a section in directory so your directory is messed up. This error will break everything else

MAT = 5040, MF = 3, MT = 104 (0): Directory (b)

ERROR(S) FOUND IN MAT=5040, MF= 3, MT=104 SECTION 3/104 NOT IN DIRECTORY

RECORD NUMBER 885

27. Missing a section in directory so your directory is messed up. This error will break everything else

MAT = 5040, MF = 3, MT = 105 (0): Directory (b)

ERROR(S) FOUND IN MAT=5040, MF= 3, MT=105 SECTION 3/105 NOT IN DIRECTORY

RECORD NUMBER 897

28. Missing a section in directory so your directory is messed up. This error will break everything else

MAT = 5040, MF = 3, MT = 107 (0): Directory (b)

ERROR(S) FOUND IN MAT=5040, MF= 3, MT=107 SECTION 3/107 NOT IN DIRECTORY

RECORD NUMBER 908

29. Missing a section in directory so your directory is messed up. This error will break everything else

MAT=5040, MF=4, MT=2 (0): Directory (b)

ERROR(S) FOUND IN MAT=5040, MF= 4, MT= 2 SECTION 4/ 2 NOT IN DIRECTORY

RECORD NUMBER 925

30. Missing a section in directory so your directory is messed up. This error will break everything else MAT=5040, MF=4, MT=16 (0): Directory (b)

ERROR(S) FOUND IN MAT=5040, MF= 4, MT= 16 SECTION 4/ 16 NOT IN DIRECTORY

RECORD NUMBER 1100

31. Missing a section in directory so your directory is messed up. This error will break everything else

MAT = 5040, MF = 4, MT = 17 (0): Directory (b)

ERROR(S) FOUND IN MAT=5040, MF= 4, MT= 17 SECTION 4/ 17 NOT IN DIRECTORY

RECORD NUMBER 1111

32. Missing a section in directory so your directory is messed up. This error will break everything else

MAT = 5040, MF = 4, MT = 22 (0): Directory (b)

ERROR(S) FOUND IN MAT=5040, MF= 4, MT= 22 SECTION 4/ 22 NOT IN DIRECTORY

RECORD NUMBER 1122

33. Missing a section in directory so your directory is messed up. This error will break everything else MAT=5040, MF=4, MT=28 (0): Directory (b)

ERROR(S) FOUND IN MAT=5040, MF= 4, MT= 28

SECTION 4/ 28 NOT IN DIRECTORY

RECORD NUMBER 1133

34. Missing a section in directory so your directory is messed up. This error will break everything else

MAT = 5040, MF = 4, MT = 32 (0): Directory (b)

ERROR(S) FOUND IN MAT=5040, MF= 4, MT= 32 SECTION 4/ 32 NOT IN DIRECTORY

RECORD NUMBER 1144

35. Missing a section in directory so your directory is messed up. This error will break everything else $MAT=5040,\ MF=4,\ MT=51\ (0)$: Directory (b)

ERROR(S) FOUND IN MAT=5040, MF= 4, MT= 51 SECTION 4/ 51 NOT IN DIRECTORY

RECORD NUMBER 1155

36. Missing a section in directory so your directory is messed up. This error will break everything else MAT=5040, MF=4, MT=52 (0): Directory (b)

ERROR(S) FOUND IN MAT=5040, MF= 4, MT= 52 SECTION 4/ 52 NOT IN DIRECTORY

RECORD NUMBER 1185

37. Missing a section in directory so your directory is messed up. This error will break everything else $MAT=5040,\ MF=4,\ MT=53\ (0)$: Directory (b)

ERROR(S) FOUND IN MAT=5040, MF= 4, MT= 53 SECTION 4/ 53 NOT IN DIRECTORY

RECORD NUMBER 1212

38. Missing a section in directory so your directory is messed up. This error will break everything else MAT=5040, MF=4, MT=54 (0): Directory (b)

ERROR(S) FOUND IN MAT=5040, MF= 4, MT= 54 SECTION 4/ 54 NOT IN DIRECTORY

RECORD NUMBER 1241

39. Missing a section in directory so your directory is messed up. This error will break everything else MAT=5040, MF=4, MT=55 (0): Directory (b)

ERROR(S) FOUND IN MAT=5040, MF= 4, MT= 55 SECTION 4/ 55 NOT IN DIRECTORY

RECORD NUMBER 1266

40. Missing a section in directory so your directory is messed up. This error will break everything else

MAT = 5040, MF = 4, MT = 56 (0): Directory (b)

ERROR(S) FOUND IN MAT=5040, MF= 4, MT= 56 SECTION 4/ 56 NOT IN DIRECTORY

RECORD NUMBER 1291

41. Missing a section in directory so your directory is messed up. This error will break everything else

MAT = 5040, MF = 4, MT = 57 (0): Directory (b)

ERROR(S) FOUND IN MAT=5040, MF= 4, MT= 57 SECTION 4/ 57 NOT IN DIRECTORY

RECORD NUMBER 1316

42. Missing a section in directory so your directory is messed up. This error will break everything else

MAT = 5040, MF = 4, MT = 58 (0): Directory (b)

ERROR(S) FOUND IN MAT=5040, MF= 4, MT= 58 SECTION 4/ 58 NOT IN DIRECTORY

RECORD NUMBER 1341

43. Missing a section in directory so your directory is messed up. This error will break everything else

MAT = 5040, MF = 4, MT = 59 (0): Directory (b)

ERROR(S) FOUND IN MAT=5040, MF= 4, MT= 59 SECTION 4/ 59 NOT IN DIRECTORY

RECORD NUMBER 1366

44. Missing a section in directory so your directory is messed up. This error will break everything else MAT=5040, MF=4, MT=60 (0): Directory (b)

ERROR(S) FOUND IN MAT=5040, MF= 4, MT= 60

SECTION 4/ 60 NOT IN DIRECTORY

RECORD NUMBER 1391

45. Missing a section in directory so your directory is messed up. This error will break everything else

MAT = 5040, MF = 4, MT = 61 (0): Directory (b)

ERROR(S) FOUND IN MAT=5040, MF= 4, MT= 61 SECTION 4/ 61 NOT IN DIRECTORY

RECORD NUMBER 1416

46. Missing a section in directory so your directory is messed up. This error will break everything else

MAT = 5040, MF = 4, MT = 62 (0): Directory (b)

ERROR(S) FOUND IN MAT=5040, MF= 4, MT= 62 SECTION 4/ 62 NOT IN DIRECTORY

RECORD NUMBER 1441

47. Missing a section in directory so your directory is messed up. This error will break everything else $MAT=5040,\ MF=4,\ MT=91\ (0)$: Directory (b)

ERROR(S) FOUND IN MAT=5040, MF= 4, MT= 91 SECTION 4/ 91 NOT IN DIRECTORY

RECORD NUMBER 1466

48. Missing a section in directory so your directory is messed up. This error will break everything else

MAT = 5040, MF = 5, MT = 16 (0): Directory (b)

ERROR(S) FOUND IN MAT=5040, MF= 5, MT= 16 SECTION 5/ 16 NOT IN DIRECTORY

RECORD NUMBER 1492

49. Missing a section in directory so your directory is messed up. This error will break everything else

MAT = 5040, MF = 5, MT = 17 (0): Directory (b)

ERROR(S) FOUND IN MAT=5040, MF= 5, MT= 17 SECTION 5/ 17 NOT IN DIRECTORY

RECORD NUMBER 1559

50. Missing a section in directory so your directory is messed up. This error will break everything else

MAT = 5040, MF = 5, MT = 22 (0): Directory (b)

ERROR(S) FOUND IN MAT=5040, MF= 5, MT= 22 SECTION 5/ 22 NOT IN DIRECTORY

RECORD NUMBER 1584

51. Missing a section in directory so your directory is messed up. This error will break everything else

MAT = 5040, MF = 5, MT = 28 (0): Directory (b)

ERROR(S) FOUND IN MAT=5040, MF= 5, MT= 28 SECTION 5/ 28 NOT IN DIRECTORY

RECORD NUMBER 1759

52. Missing a section in directory so your directory is messed up. This error will break everything else

MAT = 5040, MF = 5, MT = 32 (0): Directory (b)

ERROR(S) FOUND IN MAT=5040, MF= 5, MT= 32 SECTION 5/ 32 NOT IN DIRECTORY

RECORD NUMBER 1847

53. Missing a section in directory so your directory is messed up. This error will break everything else

MAT = 5040, MF = 5, MT = 91 (0): Directory (b)

ERROR(S) FOUND IN MAT=5040, MF= 5, MT= 91 SECTION 5/ 91 NOT IN DIRECTORY

RECORD NUMBER 1880

- psyche Warnings:
 - 1. Gamma width not in agreement with PSYCHE's expectations FILE 2 / SECTION 151 / ISOTOPE MASS = 117. L=0 / AT RESONANCE ENERGY 5.80800E+02 EV. THE GAMMA WIDTH 5.00000E-05 DEVIATES TOO MUCH FROM THE AVERAGE 1.03943E-01 (0): Gamma width

FILE 2

SECTION 151

ISOTOPE MASS = 117. L = 0

AT RESONANCE ENERGY 5.80800E+02 EV. THE GAMMA WIDTH 5.00000E-05 DEVIATES TOO MUCH FROM THE AV

2. Gamma width not in agreement with PSYCHE's expectations FILE 2 / SECTION 151 / ISOTOPE MASS = 117. L = 0 / AT RESONANCE ENERGY 1.35860E+03 EV. THE GAMMA WIDTH 7.00000E-05 DEVIATES TOO MUCH FROM THE AVERAGE 1.03943E-01 (0): Gamma width

FILE 2 SECTION 151 ISOTOPE MASS = 117. L = 0

AT RESONANCE ENERGY 1.35860E+03 EV. THE GAMMA WIDTH 7.00000E-05 DEVIATES TOO MUCH FROM THE AV

- recent Warnings:
 - Statistical weight of certain L values were incorrect 0: RRR goof (a)

- fudge-4.0 Warnings:
 - 1. Cross section does not match sum of linked reaction cross sections crossSectionSum label 0: total (Error # 0): CS Sum.

WARNING: Cross section does not match sum of linked reaction cross sections! Max diff: 0.28%

2. Cross section does not match sum of linked reaction cross sections $crossSectionSum\ label\ 1:\ (z,n)\ (Error\ \#\ 0):\ CS\ Sum.$

WARNING: Cross section does not match sum of linked reaction cross sections! Max diff: 0.14%

- fudge-4.0 Errors:
 - 1. The spin statistical weights are off, indicating missing channels resonances / resolved / MultiLevel_BreitWigner (Error # 0): badSpinStatisticalWeights

WARNING: The spin statical weights for L=1 sums to 2.25, but should sum to 3.0. You have too few channels for r

2. Calculated and tabulated Q values disagree. reaction label 14: n[multiplicity:'2'] + Sn116 (Error # 0): Q mismatch

WARNING: Calculated and tabulated Q-values disagree: -6660533.040771484 eV vs -6.9489e6 eV!

3. Calculated and tabulated Q values disagree. reaction label 15: n[multiplicity:'3'] + Sn115 (Error # 0): Q mismatch

WARNING: Calculated and tabulated Q-values disagree: -16223980.0447998 eV vs -1.6516e7 eV!

4. Calculated and tabulated Q values disagree. reaction label 16: n+H1+In116 (Error # 0): Q mismatch

WARNING: Calculated and tabulated Q-values disagree: -9156275.101806641 eV vs -9439530. eV!

5. Calculated and tabulated Q values disagree. reaction label 17: n + H2 + In115 (Error # 0): Q mismatch

WARNING: Calculated and tabulated Q-values disagree: -13716429.1542511 eV vs -1.39175e7 eV!

6. Calculated and tabulated Q values disagree. reaction label 18: Sn118 + gamma~(Error # 0): Q mismatch

WARNING: Calculated and tabulated Q-values disagree: 9610054.634933472 eV vs 9326190. eV!

7. Calculated and tabulated Q values disagree. reaction label 19: n + He4 + Cd113 (Error # 0): Q mismatch

WARNING: Calculated and tabulated Q-values disagree: -3492959.971069336 eV vs -3770490. eV!

8. Calculated and tabulated Q values disagree. reaction label 20: H1 + In117-s (Error # 0): Q mismatch

WARNING: Calculated and tabulated Q-values disagree: -389933.6356201172 eV vs -672430. eV!

9. Calculated and tabulated Q values disagree. reaction label 21: H2 + In116_s (Error # 0): Q mismatch

WARNING: Calculated and tabulated Q-values disagree: -6931709.000869751 eV vs -7129410. eV!

10. Calculated and tabulated Q values disagree. reaction label 22: H3 + In115_s (Error # 0): Q mismatch

WARNING: Calculated and tabulated Q-values disagree: -7459196.213638306 eV vs -7732350. eV!

11. Calculated and tabulated Q values disagree. reaction label 23: $He4 + Cd114_{-s}$ (Error # 0): Q mismatch

WARNING: Calculated and tabulated Q-values disagree: 5550019.391677856 eV vs 5.2749e6 eV!

• njoy2012 Warnings:

1. With the advent of the ENDF-6 format, it is possible to make evaluations that fully describe all the products of a nuclear reaction. Some carry-over evaluations from earlier ENDF/B versions also have this capability, but many do not. This message is intended to goad evaluators to improve things!

groupr...compute self-shielded group-averaged cross-sections (0): GROUPR/conver (0)

---message from conver---cannot do complete particle production for mt= 16 only mf4/mf5 provided

2. With the advent of the ENDF-6 format, it is possible to make evaluations that fully describe all the products of a nuclear reaction. Some carry-over evaluations from earlier ENDF/B versions also have this capability, but many do not. This message is intended to goad evaluators to improve things!

groupr...compute self-shielded group-averaged cross-sections (1): GROUPR/conver (0)

---message from conver---cannot do complete particle production for mt= 17 only mf4/mf5 provided

- 3. With the advent of the ENDF-6 format, it is possible to make evaluations that fully describe all the products of a nuclear reaction. Some carry-over evaluations from earlier ENDF/B versions also have this capability, but many do not. This message is intended to goad evaluators to improve things!

 groupr...compute self-shielded group-averaged cross-sections (2): GROUPR/conver (0)
 - ---message from conver---cannot do complete particle production for mt= 22 only mf4/mf5 provided
- 4. With the advent of the ENDF-6 format, it is possible to make evaluations that fully describe all the products of a nuclear reaction. Some carry-over evaluations from earlier ENDF/B versions also have this capability, but many do not. This message is intended to goad evaluators to improve things!

groupr...compute self-shielded group-averaged cross-sections (3): GROUPR/conver (0)

- ---message from conver---cannot do complete particle production for mt= 28 only mf4/mf5 provided
- 5. With the advent of the ENDF-6 format, it is possible to make evaluations that fully describe all the products of a nuclear reaction. Some carry-over evaluations from earlier ENDF/B versions also have this capability, but many do not. This message is intended to goad evaluators to improve things!

 groupr...compute self-shielded group-averaged cross-sections (4): GROUPR/conver (0)
 - ---message from conver---cannot do complete particle production for mt= 32 only mf4/mf5 provided
- 6. With the advent of the ENDF-6 format, it is possible to make evaluations that fully describe all the products of a nuclear reaction. Some carry-over evaluations from earlier ENDF/B versions also have this capability, but many do not. This message is intended to goad evaluators to improve things!

 groupr...compute self-shielded group-averaged cross-sections (5): GROUPR/conver (0)

---message from conver---cannot do complete particle production for mt= 91 only mf4/mf5 provided